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## CLAIMS

1. A pressure vessel comprising a fiber reinforced resin layer, which is made of a reinforced fiber impregnated in resin, on a surface of a vessel body,  
5 wherein the pressure vessel is produced by forming the fiber reinforced resin layer on the surface of the vessel body, hardening the fiber reinforced resin layer, and then applying an internal pressure and plastically deforming the vessel body such that a distortion of the surface of the vessel body in a circumferential direction of the vessel body be in a range of 0.7% to 0.9%, and  
10 wherein the pressure vessel has a burst pressure which is 2.2 to 2.8 times as large as a charging pressure.
2. A pressure vessel according to claim 1, wherein the reinforced fiber has ductility in a range of 1.4% to 1.6%.
- 15 3. A pressure vessel according to claim 1, wherein the reinforced fiber has a strand elastic modulus of 250 GPa or greater.
4. A pressure vessel according to claim 1, wherein the fiber reinforced resin layer  
20 has a multilayered structure, and a strand elastic modulus of one layer constituting the fiber reinforced resin layer is different from a strand elastic modulus of another layer constituting the fiber reinforced resin layer.
5. A pressure vessel according to claim 1, wherein the fiber reinforced resin layer  
25 has a multilayered structure comprising a circumferential orientation layer in which an

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orientation direction of the reinforced fiber impregnated in resin is a circumferential direction of the vessel body, and an axial orientation layer in which an orientation direction of the reinforced fiber impregnated in resin is an axial direction of the vessel body.

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6. A pressure vessel according to claim 5, wherein the reinforced resin layer comprises the circumferential orientation layer and the axial orientation layer which are alternately layered.

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7. A pressure vessel according to claim 5, wherein an outermost layer of the reinforced resin layer is the circumferential orientation layer.

8. A pressure vessel according to claim 1, wherein the vessel body is made of an aluminum alloy.

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9. A method for producing a pressure vessel comprising the steps of:

forming a fiber reinforced resin layer, which is made of a reinforced fiber impregnated in resin, on a surface of a vessel body;

hardening the fiber reinforced resin layer to obtain a pressure vessel having a burst pressure, which is 2.2 to 2.8 times as large as a charging pressure; and

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applying an internal pressure and plastically deforming the vessel body such that a distortion of the surface of the vessel body in a circumferential direction of the vessel body be in a range of 0.7% to 0.9%.

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